Application No. Applicant(s) Index of Claims 10/623,844 DEROCHE ET AL. Examiner Art Unit Willmon Fridie 3722 (Through numeral) Rejected Non-Elected **Appeal** N Cancelled 0 Allowed Restricted Interference **Objected** 

| Cli      | aim      | Date |              |          |          |                         |         |                    |         |                   | aim  | Т        | Date   |          |          |          |          |          |           |               |          | aim      | Date     |          |                 |               |          |           |          |          |           |          |
|----------|----------|------|--------------|----------|----------|-------------------------|---------|--------------------|---------|-------------------|--|----------|--|----------|----------|----------|----------|----------|-----------|---------------|----------|----------|----------|----------|-----------------|---------------|----------|-----------|----------|----------|-----------|----------|
| - O      | T        |      |              |          |          |                         |         |                    |         |                   | <del>                                   </del> | +        | - Date   |          |          |          |          |          |           | -             | - Date   |          |          |          |                 |               |          | $\dashv$  |          |          |           |          |
| Final    | Original | 2    | 7            |          |          |                         |         |                    |         |                   | Final  | Original |  |          |          |          |          |          |           |               |          | Final    | Original |          |                 |               |          |           |          |          |           | !        |
| -        | 1        | V    | У            | ╁-       | +        | ╁                       | +       | +                  | +       | +                 | <del>                                   </del> | 51       | ╀  | ⊢        |          | -        |          | _        | $\dashv$  |               | $\dashv$ |          | 101      |          | $\vdash \vdash$ | $\dashv$      | $\dashv$ |           | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$ |
| $\vdash$ | 2        | H    | 1            | ╁        | +        | +                       | +       | +                  | +       |                   |  | 52       | ╁╌   | ├        | -        |          |          | $\dashv$ | $\dashv$  | -             | $\dashv$ |          | 102      | H        |                 | $\dashv$      | $\dashv$ |           |          |          | $\dashv$  | -        |
|          | 3        | Н    | ╁            | ╁        | ┿        | +                       | +       | ╁                  | ┿       |                   | <b></b>  |          | +  | ┢        | ⊢        |          | $\vdash$ | $\dashv$ |           | -             |          |          |          |          | -               | $\dashv$      | $\dashv$ | $\dashv$  |          | $\vdash$ | $\dashv$  | Н        |
| -        |          | Н    | ╙            | ╁        | +        | ┿                       | +       | +                  | +       | -                 |  | 53       | ⊢  | ⊢        | ⊢        | <u> </u> | -        |          |           | $\dashv$      | $\dashv$ |          | 103      |          | $\vdash$        | -             | $\dashv$ | -         |          | $\vdash$ | $\dashv$  | $\dashv$ |
| <u> </u> | 4        | Н    | +-           | ┼        | +-       | +                       | +       | +                  | -       | +                 |  | 54       | ┼  | ├        | <u> </u> | $\vdash$ | Ш        | $\dashv$ | -         | $\dashv$      | _        | -        | 104      |          | <b>├</b> ─┼     | -             |          |           | _        |          |           | -        |
| <u> </u> | 5        | Н    | +            | -        | +-       | +-                      | +       |                    |         | +                 | -  | 55       | ╙  | ├-       |          | $\vdash$ | Ш        | $\dashv$ | -         | $\rightarrow$ | -        |          | 105      | ⊢        | $\vdash \vdash$ | -             | 4        | _         | _        | $\dashv$ | 4         | $\dashv$ |
| -        | 6        | Н    | ╄            | ╀        | +-       | ┿                       | +       | +                  | +       | -                 | ļ  | 56       | ├  | ┝        |          |          |          | $\dashv$ | -         | _             |          |          | 106      | _        | $\vdash$        | -             | $\dashv$ | _         | _        | $\dashv$ | $\dashv$  | $\dashv$ |
| -        | 7        | Н    | +-           | ╁        | +-       | +                       | +       | ╀                  | +       | +                 |  | 57       | ⊬  | -        | _        | _        |          |          | -         | -             |          | -        | 107      | <u> </u> | $\vdash$        | -             | $\dashv$ | _         |          | $\dashv$ | _         | $\dashv$ |
|          | 8        | Н    |              | ╀        | $\bot$   | -                       | ╀       | +                  | +       | $\perp$           | <del> </del>                                   | 58       | ┡  | ↓        |          |          | -        | -        | _         | -             |          | <u> </u> | 108      | <u> </u> | $\vdash$        | 4             | _        |           |          | $\dashv$ |           | _        |
|          | 9        | Н    | +            | 1        | $\bot$   | $\bot$                  | ╀       | 4                  | 4       | $\perp$           |  | 59       | ↓  | ┡        |          |          | Ш        | 4        | _         | _             | _        |          | 109      | ldash    | Ш               | 4             | _        | _         |          | _        |           |          |
| <u> </u> | 10       | Ц    | +            | ╀-       | +        | $\bot$                  | $\bot$  | +                  | +       |                   |  | 60       | ↓_   | _        | L        |          |          | _        | _         |               | _        |          | 110      | Щ        | Ш               | _             | 4        | _         |          |          |           | _        |
| <u> </u> | 11       | Н    | $\perp$      | ╄        | ╀        | +                       | +       | +                  | 4       | 4-                |  | 61       | ⊢  | $\vdash$ | $\vdash$ | L        | Щ        |          | _         | _             |          | L        | 111      | <u> </u> | $\sqcup$        | _             | _        |           | _        | _        |           | ᆜ        |
| <u> </u> | 12       | H    | +            | ╀        | ╀        | +                       | +       | +                  | 4       | +                 | <u> </u>                                       | 62       | ـــ  | $\vdash$ | <u> </u> | $\sqcup$ | Щ        | _        | _         | _             | _        |          | 112      | <u> </u> | $\sqcup$        | $\rightarrow$ | _        | _         | _        | Ц        |           | ᆜ        |
| <u></u>  | 13       | H    | +            | +        | +        | +                       | +       | +                  | +       | +                 |  | 63       | ╄-   | $\vdash$ | $\vdash$ | Щ        | Щ        | _        | _         | _             | $\dashv$ |          | 113      | ļ        | $\sqcup$        | _             | _        | _         |          | _        | _         |          |
| <b>├</b> | 14       | H    | +            | ┼        | +        | +                       | +       | +                  | +       | +                 | <b> </b>                                       | 64       | <del>  -</del>                                   | 1        | $\vdash$ | Ш        | Щ        | _        | _         | _             |          | L        | 114      |          | $\sqcup$        |               | _        | _         |          |          | _         | $\dashv$ |
| <u> </u> | 15       | Н    | +            | ╄        | ╄        | +                       | +       | +                  | _       | +                 |  | 65       | ├-   | 닏        |          | Ш        |          |          | _         | _             | _        |          | 115      | L        | $\vdash$        | _             |          |           | _        | $\dashv$ | _         | _        |
|          | 16       | Ц    | +            | ↓_       | ╀-       | 1                       | +       | +                  | _       | $\bot$            |  | 66       | ╙  | L        |          | Щ        |          | _        | _         | _             | _        |          | 116      |          | $\sqcup$        | _             |          | _         |          | $\dashv$ |           | _        |
|          | 17       | H    | +            | ↓_       | 4        | $\bot$                  | $\bot$  | _                  | 4       |                   |  | 67       | ↓_   | <u> </u> | _        | Щ        |          | _        | _         | _             | _        |          | 117      |          | $\sqcup$        | _             | _        | _         |          | Щ        |           | _        |
| <u> </u> | 18       | 4    | 4            | ╙        | ╀        | $\bot$                  | $\bot$  | 1                  | 4       | 1                 |  | 68       | ↓_   | L        |          |          |          | _        | _         | _             | _        | <u> </u> | 118      | _        | $\sqcup$        | _             |          | _         |          | $\sqcup$ | _         | $\dashv$ |
| <u> </u> | 19       | Ц    | $\perp$      | ╄        | ╄        | _                       | 4       | 4                  | _       | $\perp$           |  | 69       | ┖  | _        | _        | Ш        | Ш        |          | _         | $\dashv$      |          |          | 119      |          | Ш               | _             | _        | _         | _        | Ш        |           |          |
|          | 20       | Ц    | ┵            | ╙        | ╄        | ┸                       | $\bot$  | ┸                  | _       | -                 |  | 70       | <u> </u>   | L.       |          |          |          | _        | _         | _             | _        |          | 120      |          |                 |               |          |           |          | Ш        |           | $\Box$   |
|          | 21       | Ц,   |              | ╙        | ┺        | ┸                       | _       | ┵                  | $\bot$  | $\perp$           | <u> </u>                                       | 71       | L  |          |          |          |          | _        | $\Box$    |               |          |          | 121      | L        |                 | $\dashv$      |          | $\Box$    |          | Ш        |           |          |
| <u> </u> | 22       | Z    | $\perp$      | ┖        | ┺        | ┸                       | ┸       | 4                  | $\perp$ |                   | <u> </u>                                       | 72       |  |          |          |          |          |          | $\Box$    | $\perp$       | _        | <u> </u> | 122      |          | $\Box$          | $\perp$       | _        |           |          |          |           |          |
|          | 23       |      |              | <u> </u> | ┸        | 1_                      | ┸       | $\perp$            | ┵       |                   |  | 73       |  |          |          |          |          |          |           |               |          |          | 123      |          |                 |               |          |           |          |          |           |          |
|          | 24       |      | 上            | L        | $\perp$  | $\perp$                 | ┸       | ┸                  | $\perp$ |                   |  | 74       |  |          |          |          |          |          |           |               |          |          | 124      |          |                 |               |          |           |          |          |           |          |
|          | 25       |      | $\perp$      | 乚        | 上        | 上                       | ┸       | ┸                  | $\perp$ | $\perp$           |  | 75       |  |          |          |          |          |          |           |               |          |          | 125      |          |                 |               |          |           |          |          |           |          |
|          | 26       |      | $\perp$      |          |          |                         |         | $\perp$            | $\perp$ |                   |  | 76       |  |          |          |          |          |          |           |               |          |          | 126      |          |                 |               |          |           |          |          |           |          |
|          | 27       |      |              |          | L        |                         |         |                    |         |                   |  | 77       |  |          |          |          |          |          |           |               |          |          | 127      |          |                 |               |          |           | П        |          | $\Box$    |          |
|          | 28       |      | 1            |          |          |                         |         |                    |         |                   |  | 78       |  |          |          |          |          |          |           |               |          |          | 128      |          |                 |               | T        |           | T        | П        | $\neg$    | П        |
|          | 29       |      | L            |          | Π        | Ţ                       |         | Т                  |         |                   |  | 79       | П  |          |          |          |          | П        | T         |               |          |          | 129      |          |                 |               |          | T         |          | $\neg$   | ╗         | П        |
|          | 30       |      |              |          |          |                         |         |                    |         |                   |  | 80       |  |          |          |          |          | T        | $\Box$    | $\neg$        |          |          | 130      |          |                 | T             |          |           |          | $\neg$   | $\neg$    | $\Box$   |
|          | 31       |      |              |          |          |                         |         | Ι                  |         |                   |  | 81       |  |          |          |          |          |          |           |               |          |          | 131      |          |                 |               |          |           | $\neg$   | $\neg$   | ヿ         | П        |
|          | 32       |      |              | Π        | П        | Т                       | Т       | Т                  | T       | $\Box$            |  | 82       | Γ  |          |          |          |          |          | T         |               | 7        |          | 132      |          | П               | $\neg$        |          | コ         | ヿ        | コ        | $\neg$    | $\neg$   |
|          | 33       |      | Г            |          |          |                         | Τ       | Т                  |         |                   |  | 83       |  | Г        |          |          |          |          | $\neg$    |               | $\neg$   |          | 133      |          | $\Box$          | 寸             |          | T         |          | $\neg$   | ╗         | $\neg$   |
|          | 34       |      |              |          |          |                         | Ι       | Τ                  |         |                   |  | 84       |  |          |          | П        |          | $\neg$   | $\exists$ |               | _        |          | 134      |          |                 | 一             |          |           | 寸        | ヿ        | $\exists$ | $\neg$   |
|          | 35       |      |              |          |          | $oldsymbol{\mathbb{L}}$ | $\perp$ | $\perp$            | $\prod$ |                   |  | 85       |  |          |          |          |          |          | $\neg$    | T             | 7        |          | 135      |          | $\Box$          | T             | $\neg$   |           | T        | ヿ        | $\neg$    | $\neg$   |
|          | 36       |      | $oxed{oxed}$ |          |          | Ι                       | Τ       | Ι                  |         |                   |  | 86       |  |          |          |          |          | $\neg$   | 1         | ヿ             | ╗        |          | 136      | $\Box$   | $\Box$          | 寸             | 寸        | $\neg$    | 一        | $\dashv$ | $\neg$    | $\neg$   |
|          | 37       |      | L            |          |          | $oxed{\mathbb{L}}$      |         | $oxed{\mathbb{I}}$ |         |                   |  | 87       |  |          |          |          |          | $\neg$   |           |               | 7        |          | 137      | П        |                 | 寸             | $\neg$   |           |          | ヿ        | ヿ         | $\neg$   |
|          | 38       |      |              |          | Π        |                         |         | Τ                  | 丅       |                   |  | 88       |  | П        | П        |          |          | 寸        |           | $\neg$        | ᆌ        |          | 138      | П        |                 | $\neg$ †      | $\dashv$ |           |          | $\dashv$ | $\dashv$  | ᅱ        |
|          | 39       |      | Π            |          | Γ        | T                       |         | Τ                  | $\neg$  |                   |  | 89       | Π  | П        |          |          | $\Box$   | _        |           | $\neg$        | $\dashv$ |          | 139      | М        |                 | 一             | ┪        |           | $\neg$   | _        | ┪         | $\dashv$ |
|          | 40       |      | Τ            |          | Г        | 1                       | T       | T                  | $\top$  | 77                |  | 90       | Π  |          | $\Box$   | $\Box$   |          |          |           | $\neg$        | $\dashv$ |          | 140      |          |                 | 7             | ╛        | 一         |          | $\dashv$ | ヿ         | ᅱ        |
|          | 41       |      | T            | Г        | T        | 1                       | Т       | Т                  | $\top$  | $\top$            |  | 91       | T  | П        |          |          |          | $\dashv$ | $\neg$    | $\dashv$      | $\neg$   |          | 141      | Н        | $\Box$          | 一             | _        | $\exists$ |          | $\dashv$ | ╛         | ᅱ        |
|          | 42       |      | T            | 1        | T        | T                       | $\top$  | T                  | $\top$  | $\top$            |  | 92       | $\vdash$   | П        |          | $\neg$   |          | 7        | $\dashv$  | 十             | $\dashv$ |          | 142      | Н        |                 | $\dashv$      | -        |           |          | $\dashv$ | 一         | ᅱ        |
|          | 43       |      | 1            | Π        | Τ        | Τ                       | 1       | T                  | T       | 17                |  | 93       |  | П        |          |          | _        | _        | $\dashv$  | 十             | _        |          | 143      | П        | o               | 寸             | $\neg$   | _         | 一        | $\dashv$ | ┪         | ᅱ        |
|          | 44       |      | 1            | Г        |          | T                       | T       | T                  | $\top$  | $\top$            |  | 94       | Т  |          |          |          | $\dashv$ | 寸        | 一         | 十             | -1       |          | 144      | $\dashv$ | +               | $\dashv$      | $\dashv$ |           | $\dashv$ | $\dashv$ | $\dashv$  | ᅱ        |
|          | 45       |      | T            | Ι        | T        | 1                       | Τ       | T                  | 1       | $\dagger \exists$ |  | 95       | $\vdash$   | П        |          |          | 一        | $\dashv$ | _         | 十             | $\dashv$ | <b>—</b> | 145      | $\dashv$ | $\dashv$        | $\neg$        | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$  | ᅱ        |
|          | 46       |      | 1            |          | T        | T                       | 1       | Ť                  | 十       | +-                |  | 96       | Г  | П        |          | $\dashv$ | $\dashv$ | 7        | _         | $\dashv$      | $\dashv$ | <b> </b> | 146      | $\dashv$ | $\dashv$        | $\dashv$      | -        |           | $\dashv$ | $\dashv$ | $\dashv$  | ᅱ        |
|          | 47       |      | 1            | T        | T        | T                       | T       | †                  | $\top$  | $\top$            |  | 97       |  | П        | $\vdash$ |          | $\dashv$ | 一        | $\dashv$  | _             | $\dashv$ |          | 147      | $\dashv$ | +               | $\dashv$      | $\dashv$ | -         | -        | $\dashv$ | $\dashv$  | $\dashv$ |
|          | 48       |      | $\top$       | $\vdash$ | $\vdash$ | T                       | T       | $\dagger$          | $\top$  | +                 |  | 98       | <del>                                     </del> | Н        | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | +         | 十             | $\dashv$ | $\vdash$ | 148      | $\dashv$ | +               | $\dashv$      | $\dashv$ | $\dashv$  | -        | $\dashv$ | -+        | $\dashv$ |
| $\Box$   | 49       |      | T            | t        | $\vdash$ | T                       | T       | $\top$             | $\top$  | $\dashv \dashv$   | <u> </u>                                       | 99       |  | Н        | $\vdash$ | $\dashv$ | -+       | +        | $\dashv$  | +             | $\dashv$ |          | 149      | $\dashv$ | +               | -+            | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$  | ᅴ        |
| $\vdash$ | 50       |      | 1            | $\vdash$ | T        | +                       | T       | +                  | $\top$  | +                 | <u> </u>                                       | 100      | 一  | $\vdash$ | $\dashv$ | ᅱ        | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$      | $\dashv$ |          | 150      | -        | -               | +             | $\dashv$ | -         | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$ |
|          |          |      | ч.           | _        | _        |                         | _       |                    |         | $\perp$           | L  |          | _  | ш        |          |          |          | 1_       |           |               |          |          | 130      |          |                 |               |          |           |          |          |           |          |